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SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for the

MISSOURI and ARKANSAS

DRAINAGE BASINS

March 1, 1942

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Issued by the  
United States Department of Agriculture  
Soil Conservation Service  
Division of Irrigation  
In Cooperation with  
The Colorado Agricultural Experiment Station  
Colorado State College  
Fort Collins, Colorado

March 10, 1942





# SNOW SURVEYS AND IRRIGATION WATER FORECASTS FOR MISSOURI AND ARKANSAS RIVERS

March 1, 1942

The following data pertaining to snow surveys and irrigation water-supply forecasts are provided by the Division of Irrigation, Soil Conservation Service, of the U. S. Department of Agriculture, in cooperation with State departments, other Federal bureaus and local organizations. The snow measurements are made principally by field personnel of the following organizations: Forest Service, National Park Service, Bureau of Reclamation, U. S. Geological Survey, War Department and State Experiment Stations. This work is otherwise conducted cooperatively with the State Engineers of Wyoming and Colorado, and various municipalities, irrigation associations, power companies and others. Precipitation records are supplied by the U. S. Weather Bureau.

## P R E C I P I T A T I O N   D A T A

WATERSHED	STATE	Precipitation October 1 to February 28	Departure from Normal	Precipitation February	Departure from Normal
		Inches	Inches	Inches	Inches
Missouri	East. Mont.	2.93	-0.10	0.66	+0.06
Missouri	Cent. Mont.	3.85	+0.25	0.47	+0.01
Missouri	North Wyo.	6.90	+0.15	1.10	-0.06
North Platte	Wyoming	5.12	+0.56	0.84	-0.09
South Platte	Colorado	6.37	+2.23	1.43	+0.68
Arkansas	Colorado	5.45	+1.57	1.09	+0.34

Precipitation over the watersheds of the Missouri and its tributaries in Montana, Wyoming and Colorado for the period from October 1 to March 1 was slightly above normal for the main Missouri, 1/2 inch above normal for the North Platte, and 2 1/4 inches above for the South Platte. February precipitation for these areas was about normal, except for the South Platte where there was an excess of 5/8 inch. For the Arkansas River in Colorado, since October 1, the precipitation was 1 1/2 inches above normal and during February 1/3 inch more than normal.





SUMMARY OF MARCH 1 SNOW SURVEYS AND COMPARISON OF DATA

WITH THAT OF PREVIOUS YEARS BY WATERSHEDS

WATERSHEDS	Snow Depth		Water Content		Number Courses in Average	Snow Density		1942 Water Content in percent of	
	Seven year Avg.*	1941	Seven Year Avg.*	1941		Seven year Avg.*	1942	Seven Year Avg.*	1941
	In.	In.	In.	In.		Percent	Percent		
MISSOURI RIVER									
Jefferson River	33.2	27.4	8.6	7.1	4	26	25	105	127
Madison River	51.5	43.3	15.3	12.6	7	30	28	87	105
Gallatin River	32.1	22.9	8.2	5.7	7	26	25	116	166
Missouri River**	26.1	17.3	6.4	3.8	10	24	25	111	187
Marias River	43.3	26.3	13.1	7.3	1	30	28	51	92
Yellowstone River	26.2	20.8	6.0	4.2	9	23	22	100	143
Shoshone River	48.6	44.3	13.2	12.8	1	27	28	92	95
Bighorn River	22.7	21.6	5.0	4.8	10	22	22	110	114
North Platte River	49.4	41.3	14.6	11.0	10	30	28	91	121
Sweetwater River	32.4	30.5	7.7	7.0	1	24	23	94	103
Laramie River	29.2	21.6	7.8	5.3	8	27	25	92	136
South Platte River***	18.3	17.4	4.0	3.3	3	22	22	140	170
Crow Creek	17.4	12.0	3.9	2.7	1	22	20	100	144
Poudre River	31.3	23.7	8.5	6.1	7	27	26	93	129
Big Thompson River	41.6	37.0	11.2	8.4	2	27	24	94	125
St. Vrain River	33.3	24.2	8.1	4.9	1	24	20	135	222
Boulder Creek	24.4	21.0	7.2	5.1	2	30	24	112	159
Clear Creek	37.8	31.2	9.1	6.7	1	24	21	85	115
ARKANSAS RIVER	36.8	33.6	9.5	8.6	8	26	23	88	98

\*Some for shorter periods.

\*\*Headwaters of Missouri River

\*\*\*Above Denver, Colo.







## WATER SUPPLY OUTLOOK

MONTANA. For the Missouri and its tributaries in Montana the water content of the snow is much better than it was a year ago and is in excess of the past seven year average. There was a substantial increase in the snow depth over this area during the month of February. At this time the outlook for the coming season's water supply is good. Soil moisture is reported to be better generally than last year at this time, stream flow is above normal and reservoir storage much in excess over that of a year ago.

WYOMING. The water content of the snow over the watershed of the Yellowstone in Wyoming and Montana is about 1/2 more than it was last year as shown by surveys on 9 snow courses; for the Big Horn in northern Wyoming it is about 1/7 more than a year ago as based on the surveys made on 10 snow courses on this drainage; for the North Platte conditions are better by 1/5; and the Laramie by 1/3. On the Shoshone the water content of the snow cover is approximately that of last year at this time, likewise for the Sweetwater. Over these various areas the soil moisture in the irrigated districts, is reported to be good to excellent, except for the Shoshone where the condition is only fair. The stream flow at this time from these several drainage areas is normal or better except for the North Park area on the North Platte where the runoff is retarded because of freezing temperatures. The reservoir storage throughout the state is considerably in excess over that of last year. On the Wind River the present storage is three times as much as last year and for the principal reservoirs on the North Platte it is more than double. Wheatland reservoir on the Laramie has 40 percent more than last year. Jackson Lake now stores 386,000 acre feet of water which is slightly less than half its capacity. Present indications are favorable for an adequate water supply in Wyoming this season.

COLORADO. The outlook for the coming season's water supply for the South Platte and tributaries is promising at this time as shown by the recent snow surveys. On the Upper South Platte the water content is nearly 3/4 more than a year ago; Poudre 1/3 more, Big Thompson 1/4 more; St. Vrain more than twice as much; Boulder and Crow creeks 1/2 more and for Clear Creek 1/6 more. The general average condition over the whole drainage area is better than the 7-year mean. During February over the headwaters of these streams the water content of the snow was increased on the average by about 2 1/2 inches. The largest gain was nearly 4 inches on the Boulder Creek drainage. Soil moisture throughout the irrigated district of the South Platte and its tributaries is good to excellent at this time. Much of this area was covered with snow during February. The stream flow is now normal or above and the reservoir filling is much above that of a year ago. The present snow cover in the mountain country indicates that most of these reservoirs will be filled to capacity before the start of the coming irrigation season.

For the Arkansas River valley in Colorado the outlook for next season is good at this time. The recent surveys show the water content of snow on the headwaters to be about the same as last year and 1/8 less than the 7-year average but because of the record filling of reservoirs, both mountain and plain, there is little doubt at this time as to an adequate water supply for the coming irrigation season. Soil moisture in the Arkansas Valley and the Purgatoire are reported to be good to excellent and stream flow is much above normal in these areas. The flow of the Arkansas River into Kansas so far this winter has been considerably more than in recent years. Because of good moisture in the soil little or no water is now being used for irrigation in the lower valley.







**MISSOURI AND ARKANSAS RIVER WATERSHEDS**  
**Summary of Federal and State Cooperative Snow Surveys**  
**Issued March 10, 1942, at Fort Collins, Colo.**

Main Drainage and No. Snow Course	Local Drainage	Location		Elev.	National Forest	Mar. 1 Snow Cover Measurements			
		State	Locality			Av. Snow Depth	Av. Water Content	1941	1942
						In.	In.	In.	In.
<b>JEFFERSON RIVER</b>									
6	Camp Creek*	Idaho	6mi. N. Spencer	21-13N-36E	6800	Targhee	32.2	30.0	8.4
7	Moose Creek*	"	3mi. S. Gibbons Pass	27-27N-21E	6200	Salmon	35.0	35.0	8.6
10	Gibbons Pass	Mont.	Gibbons Pass	4-2S-19W	7100	Bitterroot	55.0	44.1	16.2
30	Pipestone Cr.	"	Pipestone Pass	11-1N-7W	7200	Deer Lodge	16.9	11.4	3.4
	Elkhorn Hot Spgs.	"	8mi. N. Polaris	15-4S-12W	8450	Beaverhead	27.8	24.0	6.5
				Average for Drainage			33.2	27.4	8.6
<b>MADISON RIVER</b>									
2	Aster Creek*	Wyo.	Lewis Lake	44-3N110-6W	7700	Yel. Nat. P.	64.4	57.0	20.9
8	Lewis L. Divide*	"	3mi. S. Lewis L.	44-2N110-7W	7900	"	89.9	77.0	28.9
11	Norris Basin	"	Norris Basin	44-3N110-7W	7500	"	29.4	26.0	7.0
3	Big Springs*	Idaho	Big Springs	34-14N-44E	6500	Targhee	55.6	47.2	16.1
16	West Yellowstone	Mont.	W. Yellowstone	34-13S-5E	6700	Gallatin	35.2	27.8	9.7
	Twenty-one Mile*	"	8mi. S. Gallatin	1-11S-5E	7150	Yel. Nat. P.	44.8	35.0	12.8
	Hebgen Dam	"	Hebgen Dam	22-11S-3E	6550	Gallatin	41.0	33.2	11.9
	Valley View	Idaho	5mi. E. Henry's L	7-15N-44E	6500	Targhee	--	--	--
				Average for Drainage			51.5	43.3	15.3
<b>GALLATIN RIVER</b>									
	Devil's Slide	Mont.	20mi. S. Bozeman	14-5S-6E	8100	Gallatin	49.9	36.1	13.7
	Hood Meadow	"	14mi. "	22-4S-6E	6600	"	21.1	21.1	4.7
	Hood Meadow Extn.	"	14mi. "	22-4S-6E	6600	"	26.2	18.6	4.3
	Mystic Lake No. 1	"	12mi. SE.	31-3S-7E	6600	"	24.0	19.0	5.9
	Mystic Lake No. 2	"	"	31-3S-7E	6600	"	22.6	16.0	5.2
	Twenty-One Mile	"	8mi. S. Gallatin	1-11S-5E	7150	Yel. Nat. P.	44.8	35.0	12.8
	Ross Peak	"	12mi. N. Bozeman	10-1N-6E	7000	Gallatin	28.9	16.0	7.2
	New World Trail	"	8mi. SE. Bozeman	13-3S-6E	7000	"	28.5	20.0	6.4
				Average for Drainage			32.1	22.9	8.2
							51.5	43.3	15.3
							49.9	36.1	13.7
							26.2	18.6	4.3
							24.0	19.0	5.9
							22.6	16.0	5.2
							44.8	35.0	12.8
							28.9	16.0	7.2
							28.5	20.0	6.4
							32.1	22.9	8.2

\*On adjacent Drainage

#Readings Feb. 15

©Average for period of record.

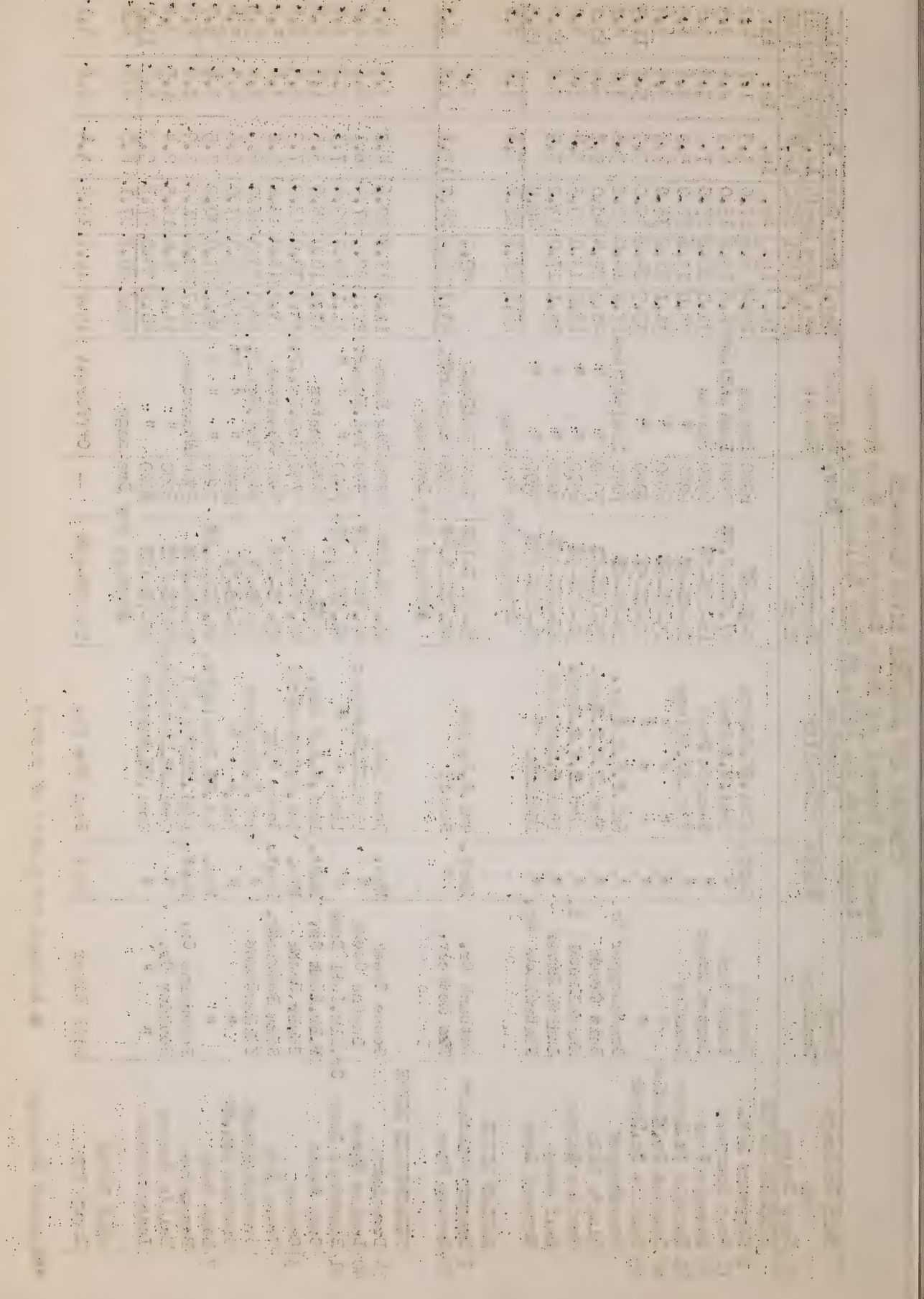




MISSOURI AND ARKANSAS RIVER WATERSHED  
Summary of Federal and State Cooperative Snow Surveys  
Issued March 10, 1942, at Fort Collins, Colo.

Main Drainage and		Local Drainage	State	Location		Elev.	National Forest	Mar.1 Snow Cover Measurements					
No.	Snow Course			Locality	Description			Av. @	In.	Av. @	In.	Av. @	In.
MISSOURI RIVER													
6	Chessman Res.	Tennile	Mont.	11mi. SW. Helena	2-8N-6W	6200	Helena	15.4	In.	3.9	In.	1.7	In.
11	Goat Mountain	South Fork	"	26mi. W. Gilman	47-5N112.9W	7000	Lewis & Clark	26.6	13.6	17.0	6.3	2.6	4.2
36	Stemple Pass	Canyon Creek	"	Stemple Pass	16-13N-7W	6900	Helena	31.0	20.8	19.0	7.2	3.8	3.9
41	Tennile Cr. Lower	Tennile	"	17mi. SW. Helena	13-8N-6W	6250	"	22.0	13.6	27.0	5.0	2.6	5.6
42	Tennile Cr. Middle	"	"	"	13-8N-6W	6800	"	31.1	20.2	35.0	7.3	3.9	6.9
43	Tennile Cr. Upper	"	"	"	19-8N-5W	8000	"	35.9	24.6	42.0	9.3	5.8	9.4
	Grasshopper	Grasshopper Cr.	"	6mi. S.W. S. Spgs.	19-9N-8E	7000	Lewis & Clark	17.2	14.0	22.2	3.6	3.0	11.9
	King's Hill	Belt Creek	"	21mi. N.W. S. Spgs.	35-13N-7E	7950	"	40.6	29.4	40.0	9.7	6.4	4.8
	Orville Harris	Mussellshell R.	"	12mi. E.W. S. Spgs.	31-10N-9E	6500	"	16.2	13.0	19.3	3.4	2.5	10.1
	Half Moon	Judith River	"	19mi. S. Lewiston	22-12N-18E	6000	"	25.1	17.0	33.2	7.9	5.6	4.0
	Crystal Lake	Flatwillow Cr.	"	18mi. SE.	24-12N-17E	5500	"	26.1	17.3	48.5	6.4	3.8	10.2
				Average for Drainage									13.5
													7.1
MARIAS RIVER													
7	Desert Mountain*	Cutbank Cr.	Mont.	4mi. S. Belton	24-31 N-19W	5600	Flathead	43.3	29.3	24.0	13.1	8.4	6.7
20	Marias Pass	Two Medicine	"	Summit	48-3N113.4W	5250	Glacier NP.	43.3	26.3	24.0	13.1	7.3	6.7
				Average for Drainage									
YELLOWSTONE RIVER													
14	Dome Lake	Goose Creek	Wyo.	Dome Lake	11-53N-87W	8800	Big Horn	18.4	17.8	20.6	4.8	3.7	4.7
40	Lupine Creek	Lupine Creek	"	11mi. SE. Gardiner	44-9N110.6W	7300	Yel. Nat. P.	27.1	22.5	27.4	6.1	4.6	6.0
41	Blacktail Deer Cr.	Blk. Tail Deer	"	11mi. "	44-9N110.6W	7500	"	31.1	28.9	29.4	7.3	5.8	6.9
	Camp Senia	W. Br. Rock Cr.	Mont.	10mi. W. Red Idg.	2-8S-18E	7870	Custer	17.0	10.0	25.9	3.5	1.7	5.8
3	Canyon	Tower Creek	Wyo.	8mi. N. Canyon Jct.	44-7N110.5W	7750	Yel. Nat. P.	35.3	30.0	32.2	7.9	5.5	6.6
	Cooke City	Soda Bottle Cr.	Mont.	Cooke City	25-9S-14E	7400	Absaroka	23.8	16.0	19.1	5.8	3.4	5.2
	Crevice Mtn. #1	Yellowstone	"	6mi. E. Gardiner	26-9S-9E	8400	Yel. Nat. P.	29.9	23.0	28.0	6.6	5.1	5.5
	Crevice Mtn. #2	"	"	7mi. "	26-9S-9E	8300	"	28.9	20.0	27.0	6.6	4.3	5.4
7	Lake Camp	"	Wyo.	3mi. NE. Fishing Br.	44-6N110.4W	7350	"	34.2	31.0	30.2	7.5	5.6	6.7
	Porcupine	Porcupine Cr.	Mont.	12mi. NE. Wilsall	10-4N-10E	6500	Absaroka	16.7	10.0	21.8	3.9	2.2	4.8
	Hell's Canyon	Boulder Cr.	"	26mi. SE. Livingston	23-5S-12E	6000	"	11.2	6.0	16.5	2.4	1.5	3.2
	Independence	"	"	26mi. NE. Gardner	22-7S-12E	8000	"	40.8	34.0	47.6	9.0	6.6	11.5
				Average for Drainage				26.2	20.8	27.1	6.0	4.2	6.0
MILK RIVER													
	Rocky Boy	Milk River	Mont.	Bear Paw Mt.	15-28N-16E	--	Off Forest	15.8	12.1	19.5	3.4	2.8	4.1

\*Adjacent Drainage @ Average for period of record

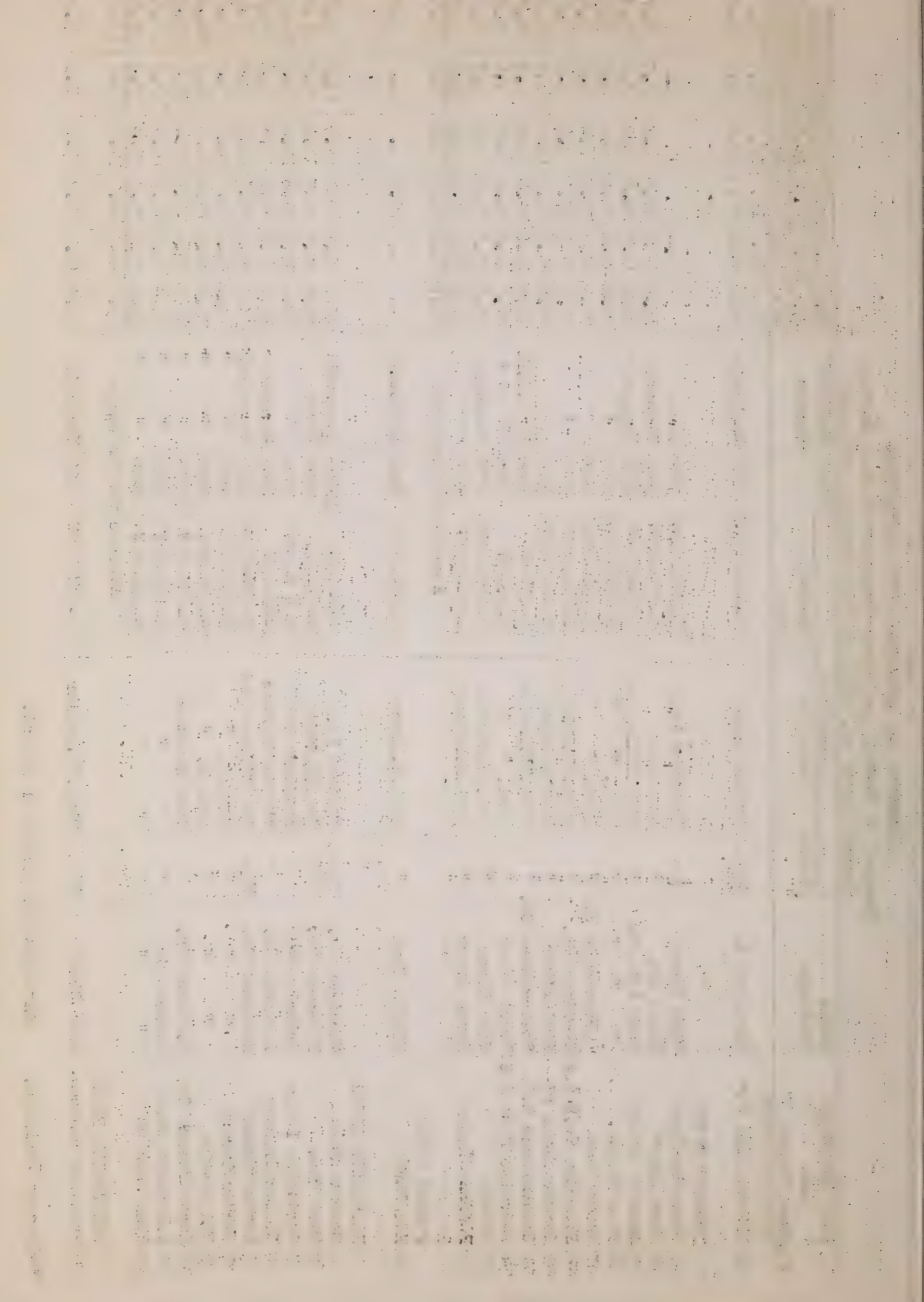




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			Locality	Description			Av. Snow Depth	Av. Water Content	Av. Snow Depth	Av. Water Content	Av. Snow Depth	Av. Water Content
No.							1941	1942	1941	1942	1941	1942
SHOSHONE RIVER												
50	Brooks Lake #3*	Wyo.	Brooks Lake	23-44N-110W	9200	Washakie	In. 48.6	In. 44.3	In. 48.6	In. 44.3	In. 48.6	In. 44.3
BIGHORN RIVER												
12	Togwotee Pass	Wyo.	Togwotee Pass	29-44N-110W	9600	Teton	18.4	17.8	20.6	4.8	--	4.7
14	Dome Lake*	"	Dome Lake	11-53N-87W	8800	Bighorn	14.4	12.5	20.9	2.2	3.7	3.3
45	Sawmill Glade	"	13mi. SW Lander	3-31N-101W	8500	Washakie	22.0	19.4	28.8	4.2	3.9	5.8
46	Blue Ridge	"	15mi. " "	23-31N-101W	9500	"	28.5	28.5	31.5	6.4	6.8	6.4
47	South Pass	"	19mi. " "	13-30N-101W	9000	"	19.2	21.7	17.6	3.6	4.8	3.2
49	Sheridan Cr. R. S. #2	"	16mi. NW Dubois	3-42N-109W	7500	"	48.6	48.6	44.3	13.2	12.8	12.2
50	Brooks Lake #3	"	Brooks Lake	23-44N-110W	9200	"	16.5	13.6	19.4	3.5	2.3	4.7
51	St. Lawrence Cr.	"	27mi. NW Lander	26-1N-4W	9000	Shos. I. R.	20.5	14.6	26.4	4.2	2.6	5.8
52	Mosquito Park R. S.	"	18mi. " "	27-2S-3W	9500	"	25.1	25.5	24.7	5.6	5.7	5.6
53	DuNoir	"	9mi. NW Dubois	27-42N-108W	8750	Washakie	14.2	13.5	14.8	2.8	2.8	2.9
54	T-Cross Ranch	"	12mi. N Dubois	1-43N-107W	8000	"	22.7	21.6	24.9	5.0	4.8	5.5
POWDER RIVER												
30	Red Fork	"	23mi. W. Kaycee	18-43N-85W	7500	Off Forest	--	--	17.9	--	--	3.2
NO. PLATTE RIVER												
1	Cameron Pass	Colo.	Cameron Pass	2-6N-76W	10300	Roosevelt	48.1	39.8	49.6	15.4	13.6	13.6
7	Park View	"	7mi. SE. Rand	24-5N-78W	9200	Routt	31.0	21.9	32.3	7.8	5.5	7.4
8	Columbine Lodge	"	Rbt. Ears Pass	21-5 N-82W	9300	"	62.4	52.2	59.6	18.2	12.3	16.3
62	Willow Cr. Pass	"	Willow Cr. Pass	1-4N-78W	9500	Arapaho	36.6	28.6	40.1	9.4	7.1	10.0
7	Bottle Creek	Wyo.	7mi. SW. Encampment	27-14N-85W	8200	Medicine Bow	37.4	25.3	36.7	10.2	7.0	9.1
8	Webber Spring	"	10mi. W. "	27-14N-85W	9000	"	45.2	36.2	45.2	12.6	9.3	12.7
9	Old Battle	"	12mi. W. "	29-14N-85W	9800	"	76.4	64.9	75.4	24.6	19.0	24.8
37	North French Cr.	"	Cent. Saratoga	27-16N-80W	10200	"	69.7	62.4	59.3	23.4	17.1	18.3
38	N. Barrett Cr. #2	"	"	30-16N-80W	9400	"	52.4	47.9	47.7	15.4	12.2	12.3
39	Ryan Park #2	"	"	34-16N-81W	8400	"	34.4	33.5	35.7	9.4	7.3	8.3
SWEETWATER RIVER												
29	Grannier Meadows	Wyo.	20mi. SW Lander	Average for Drainage	9000	Washakie	49.4	41.3	48.2	14.6	11.0	13.3
							32.4	30.5	33.2	7.7	7.0	7.2

\*Adjacent Drainage. @Average for period of record.





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Main Drainage and No. Snow Course		Local Drainage	State	Location		Elev.	National Forest	Mar. 1 Snow Cover Measurements			
				Locality	Descrip- tion			Av. © 1941	1941	Av. 1942	Water Content
<b>LARAMIE RIVER</b>											
3	Brooklin Lake	Nash Fork	Wyo.	7mi. NW. Centennial	11-16N-79W	10200	Medicine Bow	In. 47.5	In. 39.1	In. 46.4	In. 13.3
11	Fox Park	Fox Creek	"	Fox Park	21-13N-78W	9200	"	27.2	22.9	29.5	7.0
34	Pole Mountain #2*	Soldier Cr.	"	10mi. SE. Laramie	35-15N-72W	8700	"	17.4	12.0	19.4	3.9
35	Libby Lodge #2	Libby Creek	"	3mi. NW. Centennial	29-16N-78W	8700	"	23.9	18.0	25.5	5.8
36	Hairpin Turn #2	Nash Fork	"	5mi. NW. Centennial	24-16N-79W	9500	"	25.0	18.8	25.6	6.0
4	W. Port. G-P Tunnel	Laramie R.	Colo.	4mi. N. Chambers L	7-8N-75W	8600	Roosevelt	24.9	16.3	24.6	5.0
50	Deadman Hill*	Deadman Cr.	"	10mi. W. R. Feather	26-10N-75W	10200	"	36.7	25.1	36.3	9.0
71	Deadman Hill #2*	Deadman Cr.	"	8mi. SW. "	6-9N-74W	10200	"	30.8	20.8	30.4	7.4
83	Roach	LaGarde Cr.	"	8mi. NW. Glendevy	5-10N-77W	9800	"	38.2	38.2	56.0	13.5
								Average for Drainage		7.8	5.3
<b>SOUTH PLATTE RIVER</b>											
14	Hoosier Pass	S. Platte R.	Colo.	Hoosier Pass	13-8S-78W	11400	Pike	31.9	25.5	37.2	9.2
15	Fairplay	" "	"	Fairplay	33-9S-77W	10000	"	4.4	6.4	9.1	1.2
83	Jefferson Cr. #2	Jefferson Cr.	"	5mi. NW. Jefferson	14-7S-76W	10100	"	18.7	20.3	28.6	6.4
								Average for Drainage		4.0	3.3
<b>CROW CREEK</b>											
34	Pole Mountain #2	Crow Creek	Wyo.	10mi. SE. Laramie	35-15N-72W	8700	Medicine Bow	17.4	12.0	19.4	3.9
<b>POUDRE RIVER</b>											
1	Cameron Pass	Joe Wright Cr.	Colo.	Cameron Pass	2-6N-76W	10300	Roosevelt	48.1	39.8	49.6	13.6
2	Chambers Lake	Poudre River	"	Chambers Lake	6-7N-75W	9000	"	19.3	13.5	23.5	4.9
3	Big South	" "	"	2mi. E. Chambers L	33-8N-75W	8600	"	8.0	4.2	11.0	1.4
50	Deadman Hill	N. Poudre R.	"	10mi. W. R. Feather	26-10N-75W	10200	"	36.7	25.1	36.3	9.0
65	Lake Irene*	Big S. Poudre	"	1mi. SW. Milner P.	8-5N-75W	10600	Ry. Mtn. N.P.	54.7	50.5	54.2	13.4
68	Four Glass Lake	L. S. Poudre	"	2mi. N. W. Pingree P.	18-7N-73W	9500	Roosevelt	21.5	11.7	22.7	5.6
71	Deadman Hill #2	N. Poudre R.	"	8mi. SW. R. Feather	6-9N-74W	10200	"	30.8	20.8	30.4	7.4
								Average for Drainage		7.6	6.1
								Average for Drainage		8.5	7.9
<b>BIG THOMPSON</b>											
65	Lake Irene*	Big Thompson R.	Colo.	1mi. SW. Milner P.	8-5N-75W	10600	Ry. Mtn. N.P.	54.7	50.5	54.2	13.4
95	Hidden Valley #2	Hidden Valley Cr.	"	9mi. W. Estes P.	23-5N-74W	9550	"	28.6	23.6	33.6	7.6
								Average for Drainage		11.2	8.4
								Average for Drainage		13.9	10.5







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MISSOURI AND ARKANSAS RIVER WATERSHEDS  
Summary of Federal and State Cooperative Snow Surveys  
Issued March 10, 1942, at Fort Collins, Colorado

Main Drainage and No. Snow Course	Local Drainage	State	Location		Elev.	National Forest	Mar. 1. Snow Cover Measurements					
			Locality	Descrip- tion			Av. Snow Depth		Av. Water Content		1942	
							In.	In.	Av. @	In.	In.	In.
ST. VRAIN RIVER 41 Wild Basin	N. St. Vrain R.	Colo.	5 mi. W. Allen's P.	24-3N-74W	10000	Ry. Mtn. N.P.	33.3	24.2	39.2	8.1	4.9	10.9
BOULDER CREEK 5 E. Port. Moffat T. 60 University Camp #2	S. Boulder Cr. N. Boulder Cr.	Colo. "	East Portal 5 mi. SW. Ward	2-2S-74W 28-1N-73W Average for Drainage	9400 10300 Average for Drainage	Roosevelt "	10.3	11.2	9.1	2.6	2.8	2.4
							38.6	30.9	48.4	11.8	7.4	13.8
							24.4	21.0	23.8	7.2	5.1	8.1
CLEAR CREEK 61 Loveland Pass #2 97 Grizzly Peak *	Clear Creek "	Colo. "	10 mi. W. Georgetown 1 mi. W. Loveland P.	27-4S-76W 2-5S-76W	10100 11250	Arapaho "	37.8	31.2	36.3	9.1	6.7	7.7
							--	--	45.3	--	--	11.6
ARKANSAS RIVER 19 Tennessee Pass 21 Twin Lakes Tun. 42 Marshall Creek * 43 Poncha Creek 72 Whiskey Creek #2 74 LaVeta Pass #2 * 78 Four Mile Park #2 79 Fremont Pass #2 92 Monarch Pass	Tennessee Cr. Lake Creek Poncha Creek " Whiskey Cr. Cuchara Cr. Lake Creek E. Fork Ark. R. S. Fork Ark. R.	Colo. " " " " " " " "	Tennessee Pass 9 mi. W. Twin Lakes Marshall Pass " Whiskey Cr. Pass LaVeta Pass 3 mi. SW. Twin L. Fremont Pass Monarch	21-8S-80W 22-11S-82W 24-48N-6E 19-48N-7E 37-2N105.2W 22-28S-70W 23-11S-81W 2-8S-79W 16-49N-6E Average for Drainage	10200 10500 10800 10500 10300 9300 9700 11400 10500 Average for Drainage	Cochetopa " " " Maxwell Grant San Cristobal Cochetopa Arapaho Cochetopa Average for Drainage	33.1	26.2	37.2	7.8	5.6	8.2
							30.9	25.0	33.6	8.4	6.4	7.8
							41.9	38.1	39.9	10.3	9.5	9.2
							31.1	35.0	32.4	8.3	10.2	8.4
							25.2	28.0	16.7	6.9	8.3	3.8
							31.6	30.3	24.3	7.1	8.0	3.7
							--	13.9	--	--	3.5	--
							48.9	39.0	50.7	14.1	7.8	12.9
							51.4	47.4	55.5	13.4	13.1	13.6
							36.8	33.6	36.3	9.5	8.6	8.4

\*Adjacent Drainage

@Average for period of record



